

REMARKS/ARGUMENTS

Claims 1, 2, 4-7, 21, 22, and new Claims 23 and 24 are pending in the application. Claim 3 is cancelled. Claims 1, 2, 4-7, 21, and 22 are amended. The amendments to the claims as indicated herein do not add any new matter to this application. Furthermore, amendments made to the claims as indicated herein are made to more clearly communicate the claimed invention originally presented and not for the purpose of overcoming alleged prior art.

New Independent Claim 23 is supported at least by Paragraphs 36, 39, 60, 63-65, 74, and Figs. 11-13. New Independent Claim 24 is supported at least by Paragraphs 12, 41-47, 55-79, and Figs. 6A, 6B, 10-13.

No new matter is added by either Claim 23 or Claim 24.

CLAIM REJECTIONS—NONSTATUTORY OBVIOUSNESS-TYPE DOUBLE PATENTING

Claims 1, 2, 4-7, 21, and 22 were rejected pursuant to the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of prior U.S. Patent No. 6,735,633. As suggested by the examiner, a Terminal Disclaimer (PTO/SB/26) under 37 CFR 1.321(c) is included herewith, along with the fee specified by 37 CFR 1.20(d), to overcome the double patenting rejection. The Terminal Disclaimer is executed by an Officer of FastForward Networks, assignee of all right, title, and interest in both U.S. Patent Application No. 10/767,227 and U.S. Patent No. 6,735,633. Withdrawal of this rejection is respectfully requested.

CLAIMS REJECTION—35 U.S.C. § 112, SECOND PARAGRAPH

Claim 1 was rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention. Claim 1 contained a typographical mistake that has been corrected by amendment herein. The amendment eliminated the last two limitations, “a stream processor, having logic to receive the data stream and to; an output coupled to the stream processor, having logic to receive the data stream and transmit the data stream on the data network at the negotiated transferred rate[,]” each of which was mistakenly included after the period in Claim 1. Applicant notes that this typographical mistake only appeared in the claims as presented in the preliminary amendment and not as Claim 1 was originally presented.

CLAIM REJECTIONS--35 U.S.C. § 102

Claims 1, 2, 4-7, 21, and 22 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 6,757,277 (Shaffer et al.). This rejection is respectfully traversed.

Claim 1, as clarified through amendment, requires

“negotiating a transfer rate for the particular data stream[,] includ[ing] selecting a transfer rate that (a) does not exceed the bandwidth apportioned to the particular data class that is not being used by the one or more other data streams to go below minimum acceptable transfer rates of the one or more other data streams[.]”

Shaffer handles data separately from voice. For example, Shaffer discloses allowing 60% of the bandwidth to data calls and leaving 40% for the voice load. However, these allocations are not strictly enforced. For example, Shaffer allows data calls to exceed 60% and voice load to exceed 40%. The summary in column 1, lines 55-64 of the Shaffer explains that the BWAS monitors total class bandwidth usage, sending a signal to terminals that are found using excess

bandwidth, and requiring the terminals to lower their bandwidth usage by selecting a lower speed codec. In the Shaffer, once network traffic goes from above a threshold back below the threshold, the BWAS allows the terminals to restore original codec choices.

Specifically, if the threshold system of Shaffer receives a packet that requires more than the allocated bandwidth, the Shaffer would cross the threshold, adjust its coding algorithm for all data streams, processing the new data stream at a lower bandwidth and using a slower coding algorithm for all data streams. This produces a sub-optimal result when each data stream requires a minimum amount of bandwidth in order to be effective. One such data stream is streaming video, which can be interrupted if the bandwidth falls below a minimum amount required by the streaming video, as described in Paragraph 9.

The invention recited in Claim 1 does not allow the network traffic to go above a threshold for a particular class. Specifically, Claim 1 requires the following, none of which is satisfied by Shaffer:

- negotiating a transfer rate for the particular data stream from the plurality of acceptable transfer rates;
- wherein negotiating a transfer rate for the particular data stream includes selecting a transfer rate that (a) does not exceed the bandwidth apportioned to the particular data class that is not being used by the one or more other data streams, and (b) does not cause the transfer rates of the one or more other data streams to go below minimum acceptable transfer rates of the one or more other data streams; and
- transmitting the particular data streams on the data network at the negotiated transfer rates.

Specifically, when initially selecting the transfer rate for a data stream, Shaffer does not take into account how much bandwidth remains for a particular data class based on how much bandwidth is currently being consumed by other data streams that belong to that particular class.

Independent Claims 21 and 22 comprise similar limitations to those discussed of Claim 1. Therefore, independent Claims 21 and 22 are allowable for at least reasons discussed in the response to Claim 1.

With respect to the new claims, Shaffer does not disclose or in any way suggest:

in response to determining that the particular amount of bandwidth is not sufficient, determining whether the bandwidth associated with at least one other data class is currently unused; and
in response to determining that bandwidth associated with the at least one other data class is currently unused, performing the steps of:
dynamically reallocating bandwidth from the at least one other data class to the particular data class; and
forwarding the particular data stream on said data network. (Claim 23)

In addition, Shaffer does not disclose or in any way suggest:

receiving a plurality of data streams for a plurality of plug-ins;
wherein each plug-in of the plurality of plug-ins is associated with a data class of the plurality of data classes;
wherein each data stream has at least one attribute that associates the data stream with one of the data classes;
from a plurality of acceptable transfer rates for each associated plug-in, negotiating a transfer rate for each data stream;
wherein the transfer rate of the data stream for each plug-in is limited to the bandwidth apportioned to the data class associated with the particular plug-in; and
transmitting the data streams on the data network at the negotiated transfer rates.

The dependent claims are believed to be allowable based on their incorporation of limitations from the Independent claims, as well as additional limitations that distinguish over cited art. Further, the dependent claims introduce additional features that render them patentable over the art. However, due to the fundamental differences already identified, separate arguments are not provided at this time.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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